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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/527,473	03/11/2005	Andreas Schopf	115808-481	3575

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K&L Gates LLP
P.O. Box 1135
CHICAGO, IL 60690

EXAMINER	
SAYALA, CHHAYA D	
ART UNIT	**PAPER NUMBER**
1794	

NOTIFICATION DATE	DELIVERY MODE
04/24/2009	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

chicago.patents@klgates.com

Office Action Summary	Application No.	Applicant(s)	
	10/527,473	SCHOPF ET AL.	
	Examiner	Art Unit	
	C. SAYALA	1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *06 January 2009*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-13,15-19,21-37,39,40 and 42-49* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-13,15-18,21,22,25-33,35-37,39,40 and 42-49* is/are rejected.

7)☒ Claim(s) *19,23,24 and 34* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

1. Claims 1-13, 15-18, 21-22, 25-33, 35-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Poppel et al. (US Patent 5792504), Saylock et al. (US Pub. 2004/0037943) and Dingman et al. (US Patent 6379738) in view of McCulloch (US Patent 4454804) and Martin et al. (US Patent 4781939).

The primary references of Poppel, Saylock and Dingman all show a pet food product made from meat or meat-like emulsions by extrusion using substantially the same conditions as claimed herein. The references teach a proteinaceous source which is emulsified and conveyed to a holding tube after which it is cut or chopped or shredded. Saylock teaches treating the exterior to obtain a seared or charred look (paragraph [0061] and Poppel teaches at example 1, that the chunks have a browning effect on the exterior. The references differ in that they do not teach injecting color or colors into the holding tube and they do not teach disrupting the emulsion in the pressurized zone to form pieces.

Martin et al. teach at col. 2, line 56-col. 3, line 15:

> When the meat emulsion has set to a degree sufficient to form a firm emulsion product, pressure at the downstream end of the set emulsion **in the tube** is reduced to a value below the

vapor pressure of the emulsion thereby generating steam in situ in the emulsion. The presence of steam generated in the confined emulsion mass by the vaporization of water while the protein is undergoing rapid coagulation facilitates the formation of a distinct layered structure in the emulsion and **serves to disrupt the emulsion mass into discrete chunks or pieces which are discharged from the tubular processing zone.** Additional steam at a pressure of 0.3 to 3 Kg/cm.sup.2 may be injected into the emulsion at periodic intervals at one or more points along the length of the tube to further assist in the cyclic discharge of the emulsion from the elongated tube.

The meat emulsion chunks discharged from the elongated tube have a layered, non-expanded structure containing a plurality of distinct layers of meat emulsion bonded together, with the layers being manually separable. These meat emulsion chunks have an appearance, texture and structure closely approximating those of natural meat chunks. The layered meat emulsion pieces thus produced may be used as a partial or complete replacement for natural meat chunks in a variety of foods for human consumption or in animal foods, and may be used in foods prepared by canning and retorting operations.

At col. 8, lines 12-17:

The effect of the combination of pumping the hot emulsion into the tubular processing zone by centrifugal force, subjecting the hot confined emulsion to steam pressure while the protein is coagulating at a rapid rate, together with the pressure exerted on the emulsion by pumping it through a confined zone, provides the meat emulsion with a layered, meat-like structure and appearance which is retained upon discharge from the tube. In addition, the internal generation of steam in the hot confined emulsion serves to disrupt the meat emulsion mass into discrete pieces which, by virtue of the steam pressure are rapidly discharged from the tubular processing zone into atmospheric conditions.

The emphasized parts of the above disclosure show that the emulsion was disrupted in the processing zone into chunks or pieces. Pieces and chunks caused by such high-pressure steam cannot be expected to have regular, neatly-cut contours and

therefore, based on common-sense, it can be reasonably expected that the exterior contours are irregular.

McCulloch teaches injecting fat along with a dye while it is being held in the holding tube. See example 1. Col. 5, lines 10-20 shows that when the emulsion is in the holding tube it is in the pressurized zone. Since this step is met, then it must be that the coloring obtained by the invention of the reference must be the same as that of the instant claim since no more or no less is recited than the same step. In addition the patent discloses at col. 5, lines 49-50, that the liquid additive injected diffuses throughout the material from the center to the outer surfaces. At lines 26-30 shows that the injection nozzle is placed such that the liquid dye is supplied, under pressure, to the interior of the mixture being carried through the tubular die member. In regard to this aspect, col. 3, lines 53-59 states:

> As the material passes along the length of the tube, an additive, in liquid form, is injected into the cooked material. Thus, the liquid additive is pumped through an injection nozzle which is coaxially mounted within the cylindrical bore of the tubular die under a pressure sufficient to deposit the additive in the interior of the hot pressurized cooked material.

Such disclosure renders obvious that the color adheres to the exterior surfaces, that the color is injected to the center and slowly diffuses to the exterior, and in so doing reflects what applicant claims herein (read in light of the specification at page 9, lines 1-12). Example II shows that the discharged product was expanded *pieces.*

Claims 5-6 is shown for instance at col. 4, line 44 in '504 and col. 5, line 52 in '738. The protein content is at col. 2, lines 40+ in ‘738 as is the moisture content.

Example 1, in '504 shows the temperatures of instant claim 8.

Col. 6, lines 65-67 in '738 shows instant claim 12.

Col. 8, lines 45-50 show a mechanical system which tears the coagulated meat into pieces before being canned.

With regard to claims 15 through 18, applicant claims an injector/shredder assembly, and while the McCulloch shows injecting steam to disrupt the emulsion in the holding tube, instant claim 18, recites the same thing: injecting steam to disrupt the emulsion. Therefore, if steam is the shredder, than the injector/shredder assembly has been met because McCulloch also teaches injector nozzles that allow injection of liquid additives such as colors and steam that shreds the emulsion to pieces.

With regard to claims 28-39, although McCulloch does not teach coloring only part of the emulsion, this would have been within the realm of ordinary skill based on this reference, since the reference teaches placing the nozzle 1.5 inches from the outer face of the die orifice, then to place it in such a way as to color just the surface would have been obvious. Note that the reference teaches injecting color dye only, rendering obvious the lack of a binder (claim 32).

With regard to the dye being water or oil soluble, since there are only two choices in the art, to choose one over the other would have been obvious. It is also well known that dyes that are water-soluble are pH dependent as well, and such a fact would have been obvious to the person of ordinary skill in the art at the time the invention was made. McCulloch teaches using a liquid solution of colorant or color dyes to be injected, but does not disclose their concentrations, it is being held that depending on

the concentration of color required in the meat, it would have been obvious to determine such concentrations, based on the level of skill in the art. (McCulloch, 1984). With regard to claim 36, since McCulloch teaches injecting color dyes in the same way into the same material, to find flow rates would have been within the skill of the ordinary person absent any evidence to the contrary. With regard to claim 37, see Martin at col. 7, lines 30-35 which discloses this limitation.

2. Claims 39-40, 42-49 are rejected under 35 U.S.C. 103(a) as being unpatentable over over Poppel et al. (US Patent 5792504), Saylock et al. (US Pub. 2004/0037943) and Dingman et al. (US Patent 6379738) in view of McCulloch (US Patent 4454804) and Ernst (US Patent 4011346).

The primary references are as discussed above. Poppel teaches a fat content between about 5 to about 25% fat in a meat emulsion, moisture content at lines 20-21. See the claims and the entire disclosure of the patent which teaches no binder. The patent to McCulloch teaches injecting a color into the pet food product that diffuses to the exterior. To use more than one color would have been prima facie obvious based on the fact that the patent shows one color or several. In fact, McCulloch teaches at col. 5, line 67- col. 6, line 5:

> For example, a liquid solution or suspension of a dye of one particular color may be pumped through line 36, while a different color dye may be pumped through line 37. Alternatively, a different liquid additive may be fed to each injection nozzle, so that an expanded product having a variety of colors and/or flavors may be produced simultaneously utilizing a single extruder.

Such disclosure meets claim 47. With respect to claim 46, where the reference to McCulloch teaches a variety of colors to choose and select contrasting colors would have been within the skill of the artisan to produce any type of design choice, including grill marks or a seared appearance. Also to choose a water-soluble or a fat-soluble color would have been an obvious choice being that there are only two categories of colorants and the liquid used for injecting the color can be fat as well as water, as indicated by the patent. Controlling the amount of colorant so that the diffusion of such color is controlled would have also been an obvious choice based on the patent disclosure.

Also, Ernst teaches that after the final product has formed, it can be treated to have "grill marks". The patent also teaches breaking the final product before it is fed to the pet. See example 1. To combine such teachings would have been prima facie obvious because it enhances the appearance and makes convenient the method of feeding, respectively. Note that these claims (specifically, claim 43) are product claims and applicant's claiming "negatively-charged" colorants to promote adhesion does not pertain to the final product being claimed but to the reactants in the making of the product.

Allowable Subject Matter

Claims 19, 23-24, 34 have allowable subject matter.

Prior art of record does not teach or fairly suggest the method step of injecting

negatively charged colorant. Therefore, these claims are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

Applicant's arguments filed 1/6/2009 have been fully considered but they are not persuasive.

With regard to applicant's remarks at pages 9-11, directed to the rejection over Ernst alone, that rejection has been withdrawn in view of the amended claims and the arguments presented are therefore deemed moot.

With regard to the rejection under 35 USC 103, applicant states that the rejection does not address disrupting the emulsion in the pressurized zone, as now claimed. Martin et al. discloses such a feature. Applicant then states that Poppel shows browning of the products caused by Maillard reaction. Similarly, Saylock shows a seared appearance, and Dingman does not disclose grill marks. Furthermore, McCulloch has been faulted for adding the additive under pressure to "deposit" the additive in the interior of the cooked material.

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208

USPQ 871 (CCPA 1981); *In re Merck & Co.,* 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Also, McCulloch has been mischaracterized by applicant. The color is injected into the emulsion as it moves through the processing zone and the color slowly diffuses through the emulsion. A closer review of the instant specification shows that the same occurs herein too. The coloring is not applied externally in the instant application either, as applicant appears to be alleging. The grill marks are also obtained by using contrast colors, and where the patent teaches using a variety of colors, as pointed out in the rejection, it is apparent that selection of colors to simulate, grill marks, seared appearance or any other design is nothing but just that, a selection of design or appearance. To color the emulsion in a particular way to give an appearance of grill marks, when all that the instant specification does is the same thing that the patent teaches, i.e. using a variety of colors, is neither "uniquely challenging or difficult for one of ordinary skill in the art" nor "represented an unobvious step over the prior art." See, e.g., *Leapfrog Enter., Inc.,* 485 F.3d 1157, 1162 (Fed. Cir. 2007).

With regard to the rejection of the product claims 39-40, 42-47, applicant states that Ernst shows grill marks made by an “open flame” and therefore, the reference does not show making the grill marks by color adhering on the exterior surfaces of the pieces. Applicant is reminded that these are product claims and therefore, how these grill marks are made is of little relevance, but that they are there on the pieces, which Ernst also teaches. To incorporate this in the prior art product would have been obvious. Using

water-soluble or oil-soluble colorants are also of little patentable value in product claims, since these make no patentable distinction to the end product. Moreover, applicant claims both of the two choices that exist in the art. Therefore, selecting one of the two would have been obvious.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to C. Sayala, whose telephone number is (571) 272-1405.

The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/C. SAYALA/
Primary Examiner, Art Unit 1794